Formula Sheet

Grade 9 Applied

Geometric Figure	Perimeter	Area
Rectangle I w	P = l + l + w + w or $P = 2(l + w)$	A = lw
Parallelogram	P = b + b + c + c or $P = 2(b + c)$	A = bh
Triangle a h c b	P = a + b + c	$A = \frac{bh}{2}$ or $A = \frac{1}{2}bh$
Trapezoid	P = a + b + c + d	$A = \frac{(a+b)h}{2}$ or $A = \frac{1}{2}(a+b)h$
Circle	$C = \pi d$ or $C = 2\pi r$	$A = \pi r^2$

Geometric Figure	Volume	
Cylinder	V = (area of base)(height)	
h	$V = \pi r^2 h$	
Sphere	$V = \frac{4}{3}\pi r^3 \qquad \text{or} \qquad V = \frac{4\pi r^3}{3}$	
Cone	$V = \frac{(\text{area of base})(\text{height})}{3}$	
r	$V = \frac{1}{3}\pi r^2 h \qquad \text{or} \qquad V = \frac{\pi r^2 h}{3}$	
Square- based pyramid	$V = \frac{(\text{area of base})(\text{height})}{3}$	
b b	$V = \frac{1}{3}b^2h \qquad \text{or} \qquad V = \frac{b^2h}{3}$	
Rectangular prism	V = (area of base)(height)	
h l	V = lwh	
Triangular prism	V = (area of base)(height)	
h	$V = \frac{1}{2}blh$ or $V = \frac{blh}{2}$	